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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,691	03/03/2004	Sung Chun Choi	RPL-0030	2587

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EXAMINER

ROY, SIKHA

ART UNIT PAPER NUMBER

2879

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/791,691

Applicant(s)

CHOI ET AL.

Examiner

Sikha Roy

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

The Amendment, filed on July 17, 2006 has been entered and acknowledged by the Examiner.

Cancellation of claims 13-62 has been entered.

New drawings of Figs.1-5b have been entered and are approved by the Examiner.

The objection to claim 12 has been withdrawn.

Claims 1-12 are pending in the instant application.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 recites the limitation of satisfying a relation  $d > 1.25 L$ . This particular relationship of the distance  $d$  between the scan electrode and the sustain electrode being 1.25 times greater than  $L$ , the distance between the scan electrode and the address electrode was not described in the

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specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification only discloses (page 11 lines 1-5, para [26], page 22 para [76] Fig. 6) a distance **d** between the scan electrode Y and the sustain electrode Z formed on the upper substrate 110 is set wider than a distance **L** between the scan electrode and the address electrode. It is noted that **d** being greater than **L** includes 1.25 **L** but the specification does not mention  $d > 1.25 L$  and hence is considered to be new matter.

Claims 2-12 are rejected because of their dependency status from base claim 1.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,789,862 to Makino.

Regarding claim 1 Makino discloses (Fig. 1, 5A column 3 lines 9-36, column 5 lines 41-50) a plasma display panel comprising a scan electrode 3 and a sustain electrode (common electrode) 4 which are formed on an upper substrate 1 in parallel to each other, an address electrode (data electrode) 10 on a lower substrate 2 in the

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direction where the address electrode intersects the scan and sustain electrode, the distance between the scan and sustain electrode (discharge electrode gap)  $d$  is set  $d = 2.0 L$ , where  $L$  is the distance between the scan electrode and the address electrode (opposing discharge gap).

Regarding claim 11 Makino discloses in Fig. 1 the distance between the sustain electrode 4 and address electrode 10 is set the same as that between the scan electrode 3 and address electrode 10.

Regarding claim 12 Makino discloses (column 5 lines 41-45, column 6 lines 53,54) the opposing discharge gap is conventionally  $150\text{ }\mu\text{m}$  and the distance  $d$  between the scan and sustain electrode is set to be  $300\text{ }\mu\text{m}$ .

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,789,862 to Makino as applied to claim 1 above, and further in view of U.S. Patent 6,720,736 to Lee et al.

Regarding claim 2 Makino is silent about an auxiliary electrode formed on the address electrode in a portion where the scan and sustain electrodes intersect the address electrode.

Lee in analogous art of plasma display panel discloses (Fig. 7 column 4 lines 12-31 column 6 line 63 through column 7 line 3) discloses auxiliary electrodes 62Xa formed on the address electrode 62X in a portion where the scan and sustain electrodes (62Xa perpendicularly overlaps trigger electrode playing role of scanning electrode) intersect the address electrode. Lee further teaches this configuration of plasma display panel is capable of improving its discharge efficiency and brightness.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to include the auxiliary electrode formed on the address electrode of Makino at the portion of intersection of sustain and scan electrodes with address electrode as taught by Lee for improving the discharge efficiency and brightness of the display panel.

Regarding claim 3 Lee discloses the auxiliary electrode is extended in a direction parallel to the scan electrode and sustain electrode at the intersecting portion.

Regarding claim 4 it is clearly evident from Fig. 8 that the auxiliary electrode 62Xa has width wider than the scan and sustain electrode (trigger electrode acting as scanning electrode).

Regarding claim 5 Makino and Lee disclose the claimed invention except for the width of the auxiliary electrode being same as that of the scan and sustain electrodes. It would have been obvious matter of design choice to set the width of the auxiliary electrode same as that of the scan and sustain electrodes since the applicant has not

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disclosed that this configuration solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the width of the auxiliary electrode being wider than that of the scan and sustain electrodes.

Regarding claim 6 Makino and Lee disclose the claimed invention except for the width of the auxiliary electrode being narrower than that of the scan and sustain electrodes. It would have been obvious matter of design choice to set the width of the auxiliary electrode narrower than that of the scan and sustain electrodes since the applicant has not disclosed that this configuration solves any stated problem or is for any particular purpose.

Regarding claims 7 and 8 Lee discloses the auxiliary electrode is extended in both directions (including one direction) parallel to the scan and sustain electrodes at the intersecting portion.

Regarding claims 9 and 10 Lee discloses the auxiliary electrode is extended parallel to the scan electrode and the sustain electrode at a portion where the auxiliary electrode intersects the scan and sustain electrodes respectively.

### ***Response to Arguments***

Applicant's arguments filed July 17, 2006 have been fully considered but they are not persuasive.

In response to applicant's argument (Remarks , page 8) that the references fail to show certain features of applicant's invention, it is noted that the features upon which

applicant relies (i.e.,  $d > 1.25L$  in sustain period) are not recited in the rejected claim(s). Applicant alleges that Makino is silent about satisfying the claimed relationship between  $d$  and  $L$  in sustain period, and hence Makino's plasma display panel is different from the instant invention the examiner respectfully notes that the 'relationship ( $d > 1.25L$ ) satisfying in sustain period in order to form a wide positive column' is not recited in claim 1. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



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**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Sikha Roy*

Sikha Roy  
Patent Examiner  
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